

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Turnbull et al. )  
SERIAL NO.: ) *# 7 / K.T.  
FILED: ) I.D.S.*  
TITLE: CIRCULAR POLYNUCLEOTIDE TEMPLATES )  
AND METHODS FOR OLIGONUCLEOTIDE )  
SYNTHESIS )  
GROUP ART UNIT: )  
EXAMINER: )

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents and Trademarks  
Washington, D. C. 20231

Dear Sir:

In compliance with the duty of disclosure set out in 37 C.F.R. §1.56, attached hereto is Form PTO-1449 containing a list of patents or publications for Applicant's Information Disclosure Statement.

Pursuant to 37 CFR Section 1.98, Content of information disclosure statement, copies of the below listed patents and/or publication references having an asterisk (\*) before them are not submitted herewith because they were submitted in prior application Serial No. 09/283,569. The earlier application is properly identified in this information disclosure statement and is relied on for an earlier effective filing date under 35 U.S.C. 120. The information disclosure statement submitted in the earlier application complies with paragraphs (a) through (c) of this section.

Each listed patent and/or publication is considered relevant to the subject application in that they individually and collectively disclose a sampling of what has been previously employed in the arts related to **CIRCULAR TEMPLATES AND METHODS**.

Applicant respectfully requests consideration of each of the listed patents and/or publications during examination of the present application.

**Identification of Person(s) Making This  
INFORMATION DISCLOSURE STATEMENT**

The person making this statement is:

- (a)  the inventor(s) who signs below

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SIGNATURE OF INVENTOR

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Name of Inventor Signing

- (b)  the attorney who signs below on the basis of:

the information supplied by the inventor(s)

which has been reviewed by the attorney

which has not been reviewed by the attorney

the information in the attorney's file

Registration No.: 32,604

Telephone No. (479) 582-9111

Date: 2/28/02

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SIGNATURE OF ATTORNEY

  
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Attorneys for Applicant

<b>FORM PTO-1449</b>			Atty. Docket No.: ARK00798215B	Serial No.: 108535
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>			Applicant: Turnbull et al.	Group Art:
			Filing Date:	

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
AA	*2,393,999	2/5/46	McCrone	260	326	
AB	*2,405,559	8/13/46	Bousquet	260	326	
AC	*2,524,145	10/3/50	Tawney	260	313	
AD	*5,714,320	2/3/98	Kool	435	6	
AE	*5,872,105	2/16/99	Kool	514	44	
AF						
AG						

**FOREIGN PATENT DOCUMENTS**

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
AH						
AI						

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

AJ	*Janardhanam Selvasekaran and Kenneth D. Turnbull, <i>Abstract 104, Modified Nucleic Acids as Templates for Non-Enzymatic Synthesis</i> , 53rd Southwest Regional American Chemical Society Meeting, Tulsa, Oklahoma, 1997.
AK	*Janardhanam Selvasekaran and Kenneth D. Turnbull, <i>Chemical Ligation of Oligodeoxyribonucleotides on Circular DNA Templates</i> , PrePrint 1998 Oxford University Press, Nucleic Acids Research, Vol. 26, pgs. 1-5.
AL	*Janardhanam Selvasekaran and Kenneth D. Turnbull, <i>Chemical Ligation of Oligodeoxyribonucleotides on Circular DNA Templates</i> , 1999 Oxford University Press, Nucleic Acids Research, 1999, Vol. 27, No. 2, pgs. 624-627.
AM	*Kenneth D. Turnbull and Peter B. Dervan, <i>Oligonucleotide Directed Triple Helix Formation with a 1, 2, 4-Triazene C-Nucleoside</i> , 1994 Oxford University Press, Nucleic Acids Research, Vol., pgs. 1-8.

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AN						

**FOREIGN PATENT DOCUMENTS**

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	AO						

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

AP	*Eugen Uhlmann and Anusch Peyman, <i>Antisense Oligonucleotides: A New Therapeutic Principle</i> , Chemical Reviews, Vol. 90, No. 4, June 1990.
AQ	*Yoshiaki Inaki, <i>Synthetic Nucleic Acid Analogs</i> , Prog. Polym. Sci., Vol. 17, 1992, pgs. 515-570.
AR	*Yoshiaki Inaki and Kiichi Takemoto, Osaka University, Japan, 2.2 <i>Functionality and Applicability of Synthetic Nucleic Acid Analogs</i> , pgs. 79-100.
AS	*Rajender S. Varma, <i>Synthesis of Oligonucleotide Analogues With Modified Backbones</i> , Baylor College of Medicine, The Woodlands, Texas, September, 1993, pgs. 621-637.
AT	*Serge L. Beaucage and Radhakrishnan P. Iyer, <i>The Functionalization of Oligonucleotides Via Phosphoramidite Derivatives</i> , Tetrahedron Report Number 329, Tetrahedron Vol. 49, No. 10, 1993, pgs. 1925-1963.
A U	*Tony L. Hudgens, and Kenneth D. Turnbull, <i>Abstract 309, Development of a DNA Alkylating Reagent</i> , American Chemical Society, 213th ACS National Meeting, San Francisco, CA., April 13-17, 1997.
A V	*Kenneth D. Turnbull, Qibing Zhou, and Tony L. Hudgens, <i>Abstract 360, Development of a Reagent for Nucleic Acid Phosphodiester Labeling</i> , 213th ACS National Meeting, San Francisco, CA., April 13-17, 1997.

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AW						

**FOREIGN PATENT DOCUMENTS**

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	AX						

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

A Y	*Dustin L. McMinn, Tracy J. Matray, and Marc M. Grenberg, <i>Abstract 361, Bioconjugate Synthesis Using Protected Oligonucleotides</i> , 213th ACS National Meeting, San Francisco, CA., April 13-17, 1997.
AZ	*Kenneth D. Turnbull and Janardhanam Selvasekaran, <i>Abstract 293, Chemical Ligation/Oligomerization of DNA on Modified DNA Templates</i> , American Chemical Society, 215th ACS National Meeting, Dallas, Texas, March 29-April 2, 1998.
BA	*Y. Xu, L. Milne, J. Gallagher, C.-h. B. Chen, L. Pearson, D.M. Perrin, and D.S. Sigman, <i>Abstract 294, Gene-Specific Transcription Inhibitors, Oligonucleotides Complementary to the Template Strand of the Transcription Start Site</i> , American Chemical Society, 215th ACS National Meeting, Dallas, Texas, March 29-April 2, 1998.
BB	*Carlos I. Martinez, Swannee Jacutin, and Kevin Burgess, <i>Abstract 295, Incorporation of Unnatural Nucleotides by DNA Polymerases</i> , American Chemical Society, 215th ACS National Meeting, Dallas, Texas, March 29-April 2, 1998.
BC	*Robert G. Dyer, Lea Ann Jones and Kenneth D. Turnbull, <i>Abstract 89, In Situ Alkylation of Nucleic ACII Phosphodiesters</i> , 30th Midwest Regional Meeting, American Chemical Society, Nov. 1-3, 1995, Joplin, Missouri, pg. 57.
BD	*Jeffery B. Wright and Kenneth D. Turnbull, <i>Abstract 90, A Model System for the Experimental Analysis of π π Interactions</i> , 30th Midwest Regional Meeting, American Chemical Society, Nov. 1-3, 1995, Joplin, Missouri, pg. 57.

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